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REMARKS/ARGUMENTS

Claims 1-45 remain pending in the application. The Examiner rejects claims 44-45 under 35 U.S.C. §112 and rejects claims 1-45 under 35 U.S.C. §103. Applicant amends claims 44-45 to overcome the rejection under 35 U.S.C. §112, traverse the rejections under 35 U.S.C. §103, and request reconsideration and allowance of all pending claims.

Discussion of Rejections Under 35 U.S.C. §112

Claims 44-45 were rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to point out and distinctly claim the subject matter which Applicant regards as the invention. In particular, the Examiner is unable to determine what is meant by the phrase "an ideal carrier frequency" used in the claims.

Terms in a claim are normally interpreted according to their ordinary meaning, in the context of the specification. The instant application is directed to reducing frequency error. Therefore, in the context of the specification, one would interpret the phrase "an ideal carrier frequency" to mean the carrier frequency having no error.

Although Applicant believes that the phrase is not indefinite, Applicant amends the claims to remove the term "ideal" which Applicant suspects contributes to the inability to interpret the claim. Applicant amends the claims to use the phrase "a desired carrier frequency." Applicant believes that the phrase "desired carrier frequency" would be understood to one of ordinary skill in the art to be synonymous with the phrase "ideal carrier frequency" to mean the carrier frequency that is devoid of error.

Applicant respectfully requests reconsideration and withdrawal of the rejections under 35 U.S.C. §112.

Discussion of Rejections Under 35 U.S.C. §103

Claims 1-2, 8, 11-12, 19, 32-33, and 39 were rejected under 35 U.S.C. §103(a) as allegedly unpatentable over U.S. Patent No. 6,078,570 to Czaja et al. (hereinafter Czaja I) in view of U.S. Patent No. 6,760,599 to Uhlik (hereinafter Uhlik). Claims 3-5, 13-16, and 34-36 were rejected under 35 U.S.C. §103(a) as allegedly unpatentable over Czaja I in view of Uhlik, and further in view of U.S. Patent No. 6,567,666 to Czaja et al. (hereinafter Czaja II). Claims 6-7, 17-18, and 37-38 were rejected under 35 U.S.C. §103(a) as allegedly unpatentable over Czaja

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I in view of Uhlik, and further in view of U.S. Patent No. 5,276,706 to Critchlow (hereinafter Critchlow). **Claims 9-10, 20-21, and 40-41** were rejected under 35 U.S.C. §103(a) as allegedly unpatentable over Czaja I in view of Uhlik, and further in view of U.S. Patent No. 6,564,067 to Agin (hereinafter Agin). **Claims 22-24, 27, and 30** were rejected under 35 U.S.C. §103(a) as allegedly unpatentable over U.S. Patent No. 5,784,695 to Upton et al. (hereinafter Upton) in view of Czaja I. **Claims 25-26** were rejected under 35 U.S.C. §103(a) as allegedly unpatentable over Upton in view of Czaja I, and further in view of Critchlow. **Claims 28-29** were rejected under 35 U.S.C. §103(a) as allegedly unpatentable over Upton in view of Czaja I, and further in view of Agin. **Claim 31** was rejected under 35 U.S.C. §103(a) as allegedly unpatentable over Upton in view of Czaja I, and further in view of Czaja II. **Claims 42 and 44** were rejected under 35 U.S.C. §103(a) as allegedly unpatentable over Czaja I. **Claim 43** was rejected under 35 U.S.C. §103(a) as allegedly unpatentable over Czaja I in view of U.S. Patent No. 6,278,725 to Rouphael et al. (hereinafter Rouphael). **Claim 45** was rejected under 35 U.S.C. §103(a) as allegedly unpatentable over Czaja I in view of U.S. Patent No. 6,546,252 to Jetzek et al. (hereinafter Jetzek).

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be reasonable expectation of success. Finally, the prior art reference, or references when combined, must teach or suggest all of the claim limitations.

Applicant respectfully traverse the rejections and request reconsideration, withdrawal of the rejections under 35 U.S.C. §103(a), and allowance of the claims. The cited references, either alone or in combination, fail to teach or suggest all claimed limitations. Additionally, the Examiner provides no motivation to modify or combine any of the references in a manner that would result in Applicant's claimed invention.

Claim 1 recites a method. The method includes "obtaining *frequency estimation information from a first wireless signal* received from a first carrier in a first communication system." (*emphasis added*). Claim 1 also includes "configuring a frequency tracking loop for receiving a second wireless signal from the second carrier *as a function of the frequency*

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estimation information.” (emphasis added). In this phrase, the term “frequency estimation information” refers to the information obtained from the first carrier in the first communication system.

As claimed, the frequency tracking loop for receiving the second wireless signal is configured as a function of the frequency estimation information obtained from the first wireless signal. One embodiment of the claimed invention is shown in the functional block diagram of Fig. 2.

Czaja I fails to describe or suggest this claimed feature and Uhlik also fails to describe the claimed feature and mentions frequency estimation only in passing. Furthermore, there is no motivation to combine or modify the teachings of the references in a manner that would result in Applicant’s claimed invention.

In Czaja I, the frequency synthesizer is periodically tuned to the respective frequencies of the two base stations. Czaja I fails to describe determining a frequency estimation from the first wireless signal and using the frequency estimation information to configure a frequency tracking loop for the second wireless signal. Czaja I fails to even recognize that the frequency estimation information from one wireless signal can be used to configure the tracking loop for the second wireless signal. Instead, Czaja I tracks the two wireless signals completely independently.

Czaja I describes a frequency synthesizer having two loop speeds. The fast loop speed is required because the mobile station needs to be able to tune to the candidate base station operating frequency within selected transmission frames. The frequency synthesizer of Czaja I is commanded to periodically tune to each of the operating frequencies, and the tracking loops converge on the desired frequencies independent of any frequency error determined previously.

Czaja I expressly describes the retuning of a frequency synthesizer and waiting for the synthesizer loop to settle. Czaja I fails to even suggest that an error estimation from a first system can be used for “configuring a frequency tracking loop for receiving a second wireless signal from the second carrier.” Czaja I explicitly states: “During the measurement period synthesizer 206 tunes to the search frequency. TX 210 is disabled, RX 204 receives the search frequency with normal automatic gain control, and Searcher 224 searches the new frequency once RX 204 and synthesizer 206 have settled. When the measurements are completed RX 204,

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and synthesizer 206 return to the current frequency and TX 210 is enabled.” *Czaja I*, at Col. 8, ll. 44-50.

Czaja I fails to describe any manner of using a frequency estimation from a first system in configuring a tracking loop for frequency from a second system. *Czaja I*, as explicitly stated in the above cited portion, merely described tuning a frequency synthesizer to a first frequency, waiting for the synthesizer to settle, and then later tuning to a second frequency. Tuning the synthesizer to each of the two frequencies is performed completely independent of the other frequency.

As conceded by the Examiner, *Czaja I* fails to even mention frequency estimation. Thus, regardless of whether *Uhlik* describes frequency estimation, neither reference describes nor even suggests using frequency estimation from a first system in “configuring a frequency tracking loop for receiving a second wireless signal from the second carrier.”

Applicant requests reconsideration and allowance of claim 1, because the *Czaja I* and *Uhlik*, whether alone or in combination, fail to teach or suggest every claimed feature.

Additionally, there is no motivation to combine *Czaja I* with *Uhlik* or otherwise modify the teachings of the references in a manner that would result in Applicant’s claimed invention.

The prior art must suggest the desirability of the claimed invention. *See, generally, MPEP* 2143.01. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, not in Applicant’s disclosure. *In re Vaack*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). The mere fact that references *can* be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination. *In re Mills*, 916 F.2d 680, 16 USPQ2d 1430 (Fed. Cir. 1990). It is error to reconstruct the claimed invention from the prior art by using the claim as a “blueprint.” When prior art references require selective combination to render obvious a subsequent invention, there must be some reason for the combination other than the hindsight obtained from the invention itself. *Interconnect Planning Corp. v. Feil*, 774 F.2d 1132, 227 USPQ 543 (Fed. Cir. 1985).

To reject claim 1, the Examiner presents a conclusory statement that it would be obvious to combine the references, but provides no motivation nor a suggestion that would lead one of ordinary skill in the art to combine or modify the references in a manner that would result in

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Applicant's claimed invention. The Examiner states as the motivation the conclusory statement that one would have a motivation to select the DSP described in Uhlik for further processing. There is no basis for this motivation.

The Examiner fails to provide any motivation that would lead one of ordinary skill in the art to select one minor feature described in Uhlik, and modify the teachings of Czaja I in a manner that would result in Applicant's claimed invention. The Examiner fails to identify any motivation in Czaja I to modify the teachings to include frequency estimation, and fails to provide any motivation that would lead one of ordinary skill in the art to select the one specific portion of Uhlik identified by the Examiner, other than to state that one would be motivated to do so. Therefore, Applicant requests reconsideration and allowance of claim 1 for the independent reason that there is no motivation to combine or otherwise modify the reference teaching in a manner that would result in Applicant's claimed invention.

Claims 11, 32, and 42 include features that are substantially similar to those discussed above in relation to claim 1. Applicant believes that claims 11, 32, and 42 are allowable over Czaja for the same reasons presented above in relation to claim 1, and requests reconsideration and allowance of claims 11, 32, and 42.

Claim 22 recites an apparatus. The apparatus includes "a first receiver to receive a first signal from a first carrier, the first receiver comprising a first frequency tracking loop to obtain frequency estimation information relating to the first signal; and a second receiver to receive a second signal from a second carrier, the second receiver comprising a second frequency tracking loop to obtain frequency estimation information relating to the second signal as a function of the frequency estimation information relating to the first signal."

The Examiner concedes that Upton fails to describe the first receiver comprising a first frequency tracking loop *to obtain frequency estimation information* relating to the first signal; and the second receiver comprising a second frequency tracking loop to obtain frequency estimation information relating to the second signal *as a function of the frequency estimation information relating to the first signal*, as recited in claim 22. *Office Action* dated March 8, 2006 at page 10 (*emphasis added*). The Examiner contends that Czaja I teaches these features.

However, the Examiner expressly states in the *Office Action* in rejecting claim 1 that "Czaja et al. do not expressly disclose the frequency estimation." *Office Action*, dated March 8,

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2006, at page 3. The Examiner expressly concedes that Czaja I fails to teach or suggest frequency estimation, yet cites Czaja as teaching this very feature in the rejection of claim 22.

Applicant respectfully request reconsideration and allowance of claim 22, because the Examiner expressly states that both Upton and Czaja I fail to describe frequency estimation. Because each individual reference fails to describe the same claimed feature, the combination of references cannot describe the claimed feature absent from both references. The Examiner provides contradictory statements as to the teachings of Czaja I and impermissibly argues that the reference teaches something that the Examiner expressly states is absent from the description.

Discussion of Dependent Claims

Claims 2-10, 12-21, 23-31, 33-41, and 43-45 depend, either directly or indirectly, from one of claims 1, 11, 22, 32, or 42. Applicant request reconsideration and allowance of claims 2-10, 12-21, 23-31, 33-41, and 43-45 as dependent upon an allowable base claim.

Each of the dependent claims may have individual bases for patentability beyond those discussed above in relation to the independent claims. It is not necessary to discuss the patentable distinctions of each dependent claim because of the allowability of the base claims from which they depend. However, Applicant provides some illustrative examples.

Claims 7, 18, 26 and 38 feature a "frequency tracking loop configures a rotator as a function of the frequency estimation information." The Examiner argues that Critchlow describes this claimed feature and cites to Critchlow at Col. 3, ll. 30-33.

However, the cited portion of Critchlow describes "a pattern rotator for changing an apparent frequency of the predetermined pattern of symbols for each iteration of the correlation determination." Critchlow, at Col. 3, ll. 30-33. This portion of Critchlow does not even describe a rotator that is a portion of a frequency tracking loop. The Examiner provides no explanation as to why one of ordinary skill in the art would look to a pattern rotator when seeking to modify a frequency tracking loop. Moreover, the Examiner fails to provide any motivation that even suggests that such a combination is possible or desirable. Therefore, Applicant respectfully requests reconsideration and allowance of claims 7, 18, 26, for the independent reason that the references, whether alone or in combination, fail to teach or suggest all claimed features, and there is no motivation to combine the references in the manner suggested by the Examiner.

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The Examiner cites to Agin, at Col. 2, ll. 21-23. The relevant portion of Agin states "Therefore, during compressed mode, since the inner loop power control is regularly stopped, and since the transmission rate is correspondingly increased, the target SIR needs to be larger to reach the same quality of service than during non-compressed, or normal, mode." Agin, at Col. 2, ll. 19-23.

The Examiner fails to provide any motivation that would lead one of ordinary skill in the art to the specific cited portion of Agin even if Czaja I provided a motivation to modify the frequency estimation method or apparatus. There is nothing to lead one of ordinary skill in the art to a particular handoff information described in Agin when dealing with frequency estimation and configuring of a frequency tracking loop. The Examiner provides no reasonable motivation to select the one specific portion of Agin.

Therefore, claims 9, 20, and 40 are believed to be allowable for the independent reason that there is no motivation to make the combination or modification suggested by the Examiner. Applicant respectfully requests reconsideration and allowance of the claims.

CONCLUSION


Applicant believes that all claims pending in the application are allowable. Applicant therefore respectfully requests that a timely Notice of Allowance be issued in this case. If the Examiner believes a telephone conference would expedite prosecution of this application, please telephone the undersigned.

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